

CHROMOSOME NUMBER IN *MULLA MARITIMA* (TORR.) S. WATS.—Lenz (Aliso 6:81–82. 1966) reported the somatic number of chromosomes as $2n = 20$ in *Muilla maritima* from Los Angeles County, California. Chromosome counts are now available for two collections of this species growing at the University of California Botanical Garden in Berkeley. One was collected by Wayne Roderick at Boyes Hot Springs, Sonoma County, California (U.C.B.G. accession 63.1296). The other was collected by Glen Keator ca one mile north of turn-off to Bunker Hill Road on highway 35 near Crystal Springs Reservoir, San Mateo County, California (U.C.B.G. accession 67.1243). Each has seven pairs of chromosomes at first metaphase in pollen mother cells. Two pairs are definitely smaller than the other five. Drawings of the metaphase chromosomes have been attached to vouchers in JEPS.

In a study of the embryology of this species, Berg and Maze (Madroño 18:143–151. 1966) stated that their findings do not support a close relationship of *Muilla* with other members of Alliaceae to which it is assigned. Chromosome numbers reported lend support to their opinion, since the most frequent numbers occurring in Alliaceae are $n = 8$ and 9 . The possibility that the $2n = 20$ found by Lenz could come from a triploid form is suggested.—MARION S. CAVE, Department of Botany, University of California, Berkeley 94720.

NOTES ON *ARCTOSTAPHYLOS GLAUCA* LINDL. VAR. *PUBERULA* J. T. HOWELL.—*Arctostaphylos glauca* var. *puberula*, which differs from typical *A. glauca* in its glandular pubescent to glandular hirsute or finely pubescent branchlets rather than glabrous and glaucous branchlets, has been reported at scattered localities from Santa Clara Co. to Ventura Co., California (McMinn, H. E., *An illustrated manual of California shrubs*, 1951). This variety is now being reported from several localities in southwest San Diego Co. The largest population is at the east end of Willows Road, The Willows. Specimens at this locality have glandular puberulent to glandular pubescent or glandular puberulent to nonglandular pilose branchlets, petioles, and leaf bases (*J. Keeley* 3200–3204, 3212–3218, 3301–3312). Specimens with similar types and amounts of pubescence have also been collected from Alpine Guard Station (*J. Keeley* 2949, 2952), Viejas Grade (*J. Keeley* 3221–3223), the junction of Lyons Valley Road and the Lawson truck trail (*J. Keeley* 2889, 3317) and the south end of Boulder Creek Road (*J. Keeley* 3308). All specimens will be deposited in SD. At the Willow Road site this variety appears to intergrade with the type variety as all degrees of pubescence are found. In addition three observations suggest the hypothesis that hybridization with *Arctostaphylos glandulosa* Eastw. may be the source of variation at this locality. Three specimens had inflorescence bracts 4–7 mm long, twice that typical for *A. glauca*. This characteristic was also found in at least one individual from the Alpine, Viejas Grade, and Boulder Creek localities. Even more convincing however were the characteristics of the fruits from the Willow Road population. Rather than the smooth solid endocarp typical of *A. glauca*, many were ridged and channelled, some even breaking into distinct nutlets. Several individuals from the Lyons Valley-Lawson truck trail site also exhibited this characteristic. Both of these traits, i.e., large bracts and fruits that break into distinct nutlets, are characteristics of *A. glandulosa*, a shrub found in close association with *A. glauca* at all the localities cited above. In addition a small collection of fruits from *A. glandulosa* at the Willow Road site revealed several that were fused into solid stones. Although these characteristics may have arisen from hybridization, the two populations of *Arctostaphylos* species appear to be quite distinct in such major distinguishing characters as burl formation, glaucous leaves, fruit size, and shrub aspect.—JON E. KEELEY, Department of Botany, University of Georgia, Athens 30602.